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TITLE: SPEAKER EQUIPMENT AND CHECKING
DEVICE FOR DISCONNECTION
OF SPEAKER

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ABSTRACT:

PROBLEM TO BE SOLVED: To identify remotely the presence of a broken wire or a short-circuit of each speaker with a simple method in the speaker equipment where a plurality of speakers are connected to an amplifier.

SOLUTION: A pre-stage of an amplifier 2 is provided with a mixing circuit 11, which receives an audio signal and a check signal for the amplification. An output impedance of the amplifier 2 is converted into a high impedance by a

1st transformer 4 and the output is sent to each of speakers 1a to 1n via a transmission line 3. The signal is fed to each voice coil at which the impedance is converted into a low impedance by using 2nd transformers 5a to 5n. An impedance measurement means 12a measures a transmission line impedance based on a line voltage and a driving current of the transmission line 3. A disconnection or a short-circuit of each speaker is detected based on a change in the impedance. Since the impedance at a resonance point is reduced by providing a resonance circuit to a secondary winding of the 2nd transformers 5a to 5n, a defective speaker is identified.

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